



NATIONAL ASSESSMENT
OF EDUCATIONAL
PROGRESS

Grade 8 Reading Practice Booklet

“Alien Invasion” & “Home on the Range”





Thousands of cane toads are wreaking havoc in Australia.

ALIEN INVASION

In the 1930s, beetles with a sweet tooth gulped down a lot of sugarcane in Australia. Angry sugarcane farmers needed to do something quickly. Farmers in Hawaii gave them a tip: Cane toads like to munch on the beetles. Desperate Australian farmers imported a boxful of the fist-sized toads from Hawaii and let them loose.

Bad idea. Instead of chowing down on the beetles, cane toads gobbled anything they could swallow—pet food, garbage, honeybees, termites, snails, and mice.

The toads multiplied, spreading across the northern coast of Australia. Today toads are such a problem that a member of the Australian government recently suggested that citizens use golf clubs to whack the warty amphibians!

Australia isn't the only country dealing with unwelcome animal guests. In the United States, hundreds of invasive species pose a threat to the environment.

The Aliens Are Coming

An invasive species is nonnative, or alien, to the ecosystem. An ecosystem is a group of plants, animals, and other living

organisms that live together in the same area. Although invasive species don't damage their own ecosystem, they can cause massive destruction when they invade another area.

For example, fingernail-sized zebra mussels hitchhiked from Russia to the Great Lakes in the water tanks of ships. When those ships landed in the United States, the zebra mussels began gobbling up food and oxygen, leaving nothing for other underwater creatures to eat.

They also irritated humans. Each year, a female zebra mussel can produce 30,000 to 1 million eggs. When those eggs hatch, the mussels clog pipes that provide drinking water to houses and schools.

A beetle called the emerald ash borer arrived in the United States from China in wood packing material carried aboard cargo ships or airplanes.

The adult emerald ash borer nibbles on the leaves of the ash tree. The larvae of the beetle, however, cause far more damage by chomping through the inner bark of ash trees. The insects destroy the tunnels that

allow water and nutrients to travel from the roots to the leaves. Emerald ash borers have killed 8 million to 10 million trees in Michigan, Ohio, and Indiana.

Another invasive species that is wreaking havoc is the snakehead fish.

Snakeheads arrived in the United States from Asia as exotic pets. When pet owners grew tired of the snakeheads, they threw the fish into nearby lakes and streams.

The snakehead fish now live in several states and can move over land from one body of water to another body. They dine greedily and can clear a pond of all its fish. The snakehead was recently spotted in a lake in Queens, N.Y., a part of New York City.

"The world has changed so much in the last 100 years," Jodie A. Ellis, a scientist at Purdue University, told *Senior Edition*.

"We are now able to share so many things with other countries, which is mostly a good thing. But there are costs, and one of those costs is the constant threat of invasive species."

Why Should We Care?

In addition to destroying an ecosystem, the devastation caused by invasive species can be costly. In the United States, the damage caused by the pesky critters is roughly \$137 billion per year.

"Our natural ecosystems are the primary sources of our food and drinking water," Lisa Gould, a senior scientist at the Rhode



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The snakehead fish kills native fish in many waterways in the United States.

Island Natural History Survey, told *Senior Edition*. "Ecosystems help keep our air clean. They give us medicines and materials for our industries. Without them, we could not exist for long."

Battling the Cane Toad

Back in Australia, the government has devoted \$1 million to combating that country's pesky toad problem. Scientists are researching what kinds of poisons can kill the creature.

Wildlife officials are also setting up traps to catch the toads, which are now hitchhiking across Australia in the backs of cars and trucks.

"We cannot tolerate a situation where cane toads are getting a free ride across the continent," says one Australian official.

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HOME ON THE RANGE

Forget about traveling to Africa to go on a safari. If some scientists have their way, people might be able to spot lions and elephants roaming the Great Plains of North America. The Great Plains lie in the center of North America, extending from the Mississippi River to the Rocky Mountains and from Canada to Texas.

A team of scientists recently proposed the bold plan to save endangered animals from extinction in Africa. Many animal habitats there are disappearing. A habitat is the place where a plant or an animal lives.



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Just "Plain" Smart

Supporters of the plan say that relocating the animals to the Great Plains would help restore the region's biodiversity (the variety of different organisms found within a geographic region) closer to what it was before humans came along.

Most modern African animals never lived on the Great Plains. However, some other large animals, such as camels, saber-toothed cats, and mastodons, lived there thousands of years ago.

A mastodon was a furry, elephant-like creature with long tusks. Mastodons and other animals lived on the Great Plains until the last ice age ended, about

10,000 years ago. An ice age is a period of time when sheets of ice covered Earth.

Supporters of the project also say that relocating large animals to vast parks in the Great Plains could save hundreds of species in Africa and Asia that now face extinction. They say the animals could be introduced gradually on private land. Eventually, fenced animal reserves could be opened to tourists.

Bad Idea

Those against the plan argue that releasing different species into new environments can cause destruction. Cane toads, for example, brought to

Australia from Hawaii to control beetles in sugarcane fields, ate everything in sight. Cattle and sheep ranchers are also concerned that the wild animals might devour their herds.

Critics of the plan say that there are

already a lot of endangered animals that need protection in North America. Scientist Donald Grayson says, "Why introduce . . . camels and lions when there are North American species that could benefit from the same kind of effort?"

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Some people say the addition of elephants, lions, and other big game animals would make the Great Plains even greater.

1. What is the central purpose of "Alien Invasion"?
 - A. To point out that invasive species come from many different countries
 - B. To argue that invasive species are a serious problem that must be solved
 - C. To describe the damage that invasive species cause in Australia
 - D. To suggest that invasive species can be stopped only with the government's help

2. "Alien Invasion" relies primarily on what form of evidence as support for its argument?
 - A. Quotations of famous scientists
 - B. Multiple definitions of invasive species
 - C. A series of examples of invasive species
 - D. Descriptions of different methods of control

3. According to "Alien Invasion," Australian farmers imported cane toads into Australia in order to
 - A. help save their native beetle populations
 - B. eat the sugarcane that was taking over their other crops
 - C. stop an alien species of beetle imported from Hawaii
 - D. eat beetles that were destroying sugarcane crops

4. Using what you read in "Alien Invasion," explain why people should be concerned about invasive species.

5. What is the central purpose of "Home on the Range"?
 - A. To inform people about two opposing views
 - B. To convince people to take a particular point of view
 - C. To describe recent scientific discoveries
 - D. To challenge a common belief

6. Describe a similarity and a difference between the way the two articles approach the subject of invasive species. Support your answer with references to both of the articles.

7. In "Alien Invasion," on page 4, an Australian official says, "We cannot **tolerate** a situation" where cane toads are traveling across the Australian continent. This means that the official thinks that Australians cannot
- A. find a solution to the problem posed by cane toads
 - B. understand why cane toads are such a problem
 - C. allow the cane toads to continue causing a problem
 - D. permit the cane toad problem to become well known
8. On page 5, when "Home on the Range" talks about **vast** parks in the Great Plains, this refers to parks that
- A. have mostly flat land
 - B. have protected sections
 - C. are owned by private citizens
 - D. are extremely large
9. According to "Home on the Range," some scientists think that moving African animals to the Great Plains would help improve the area's
- A. resistance to alien species
 - B. economy
 - C. biodiversity
 - D. research facilities
10. Explain why "Home on the Range" discusses animals that lived on the Great Plains thousands of years ago.

11. Do you think "Alien Invasion" is an effective title for persuading readers of the article's point of view? Support your opinion with reference to the article.
